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ACADEMIA CÉSAR VALLEJO

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GEOMETRÍA

SEMANA INTRODUCTORIA

Está compartiendo la pantalla
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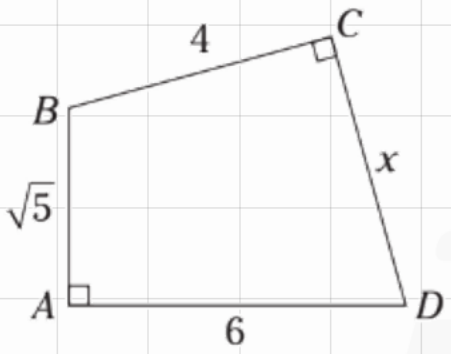
6. En la figura, halle el valor de x.



A) 1 B) 2 C) 3
D) 4 E) 5

PIDEN x

T. PITÁGORAS:

$\triangle BAD$: $(BD)^2 = 6^2 + \sqrt{5}^2$

$BD = \sqrt{41}$

$\triangle BCD$: $x^2 + 4^2 = \sqrt{41}^2$

$x^2 + 16 = 41$

$x^2 = 25$

$x = 5$

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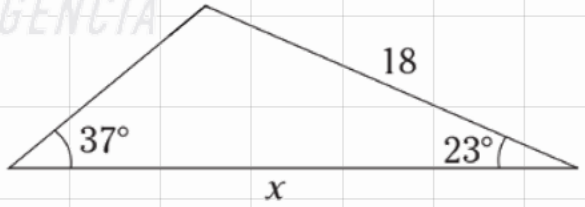
12. Calcule el valor de x.



A) $6\sqrt{3}$ B) $9\sqrt{3}$ C) $12\sqrt{3}$
D) $15\sqrt{3}$ E) $20\sqrt{3}$

PIDEN x

$\triangle BHC$ NOT 30° y 60°:

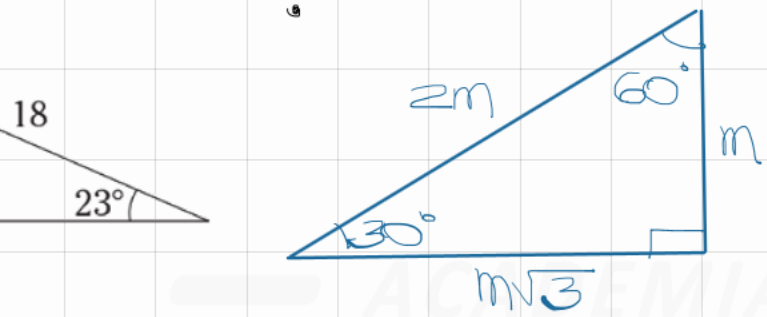
$HC = 9\sqrt{3}$

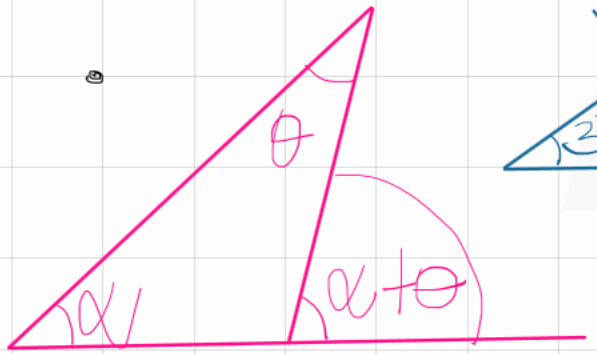
$\triangle AHC$ NOT 37° y 53°:

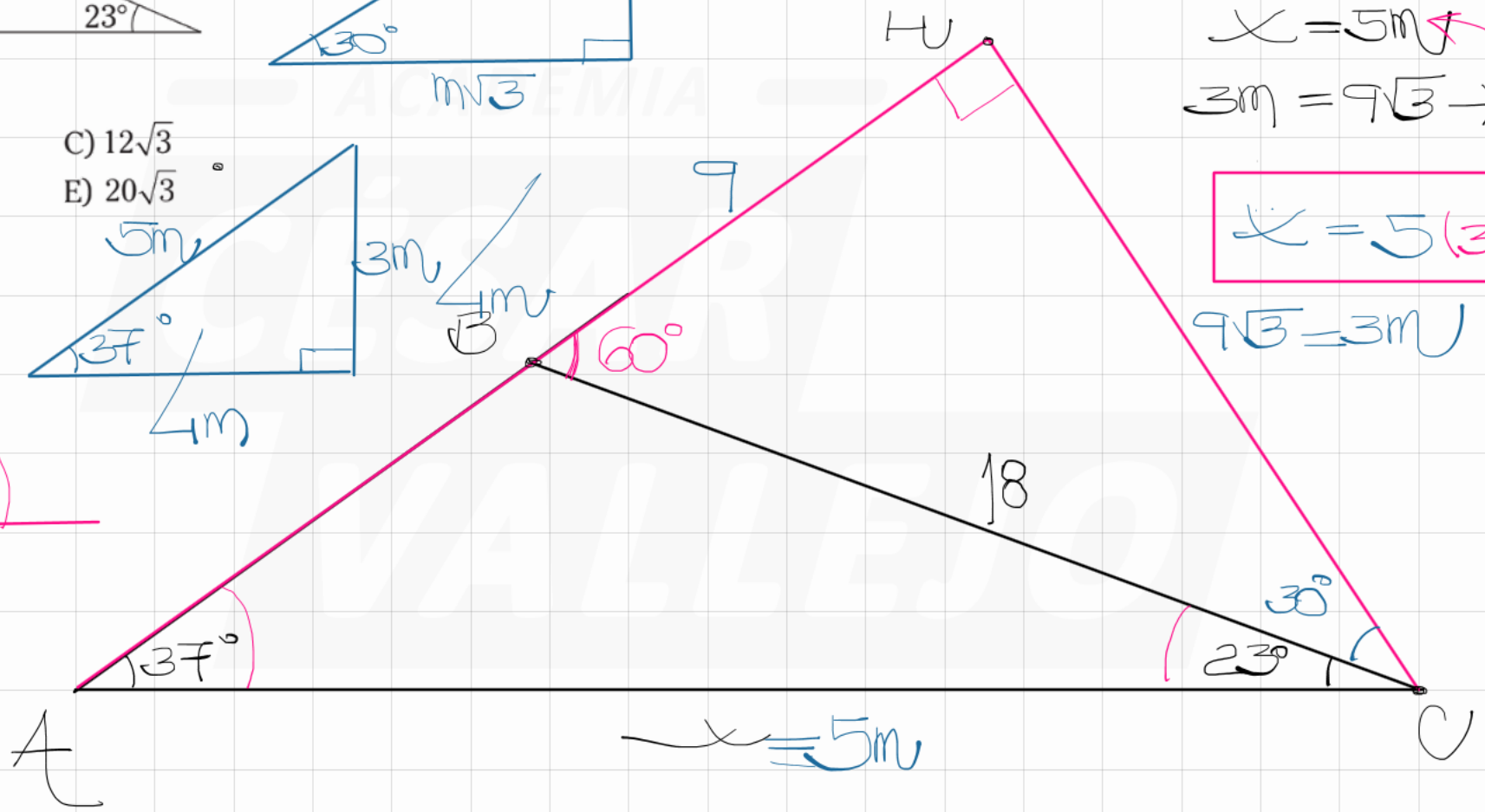
$x = 5m$

$3m = 9\sqrt{3} \rightarrow m = 3\sqrt{3}$

$x = 5(3\sqrt{3}) = 15\sqrt{3}$







$9\sqrt{3} = 3m$

D

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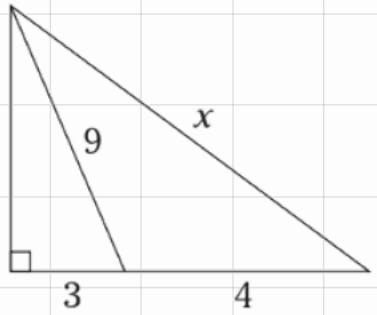
7. Calcule el valor de x.



A) 6 B) 7 C) 8
D) 9 E) 11

PIDEN x

TEO. PITÁGORAS

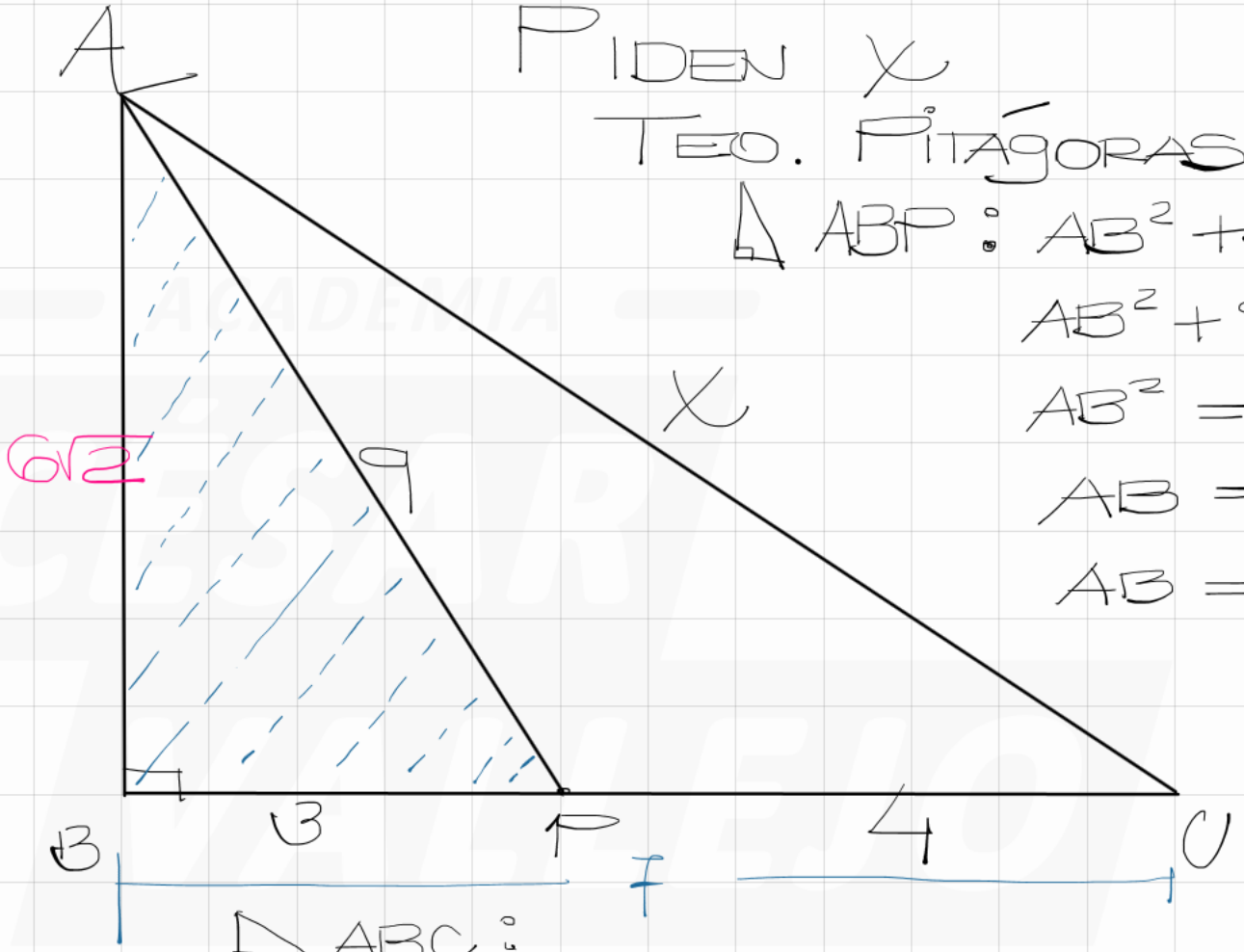
$\triangle ABP$: $AB^2 + 3^2 = 9^2$

$AB^2 + 9 = 81$

$AB^2 = 72 = 36(2)$

$AB = \sqrt{36 \times 2}$

$AB = 6\sqrt{2}$



$\triangle ABC$:

$x^2 = 7^2 + (6\sqrt{2})^2$

$x^2 = 49 + 72$

$x^2 = 121$

$x = 11$

E

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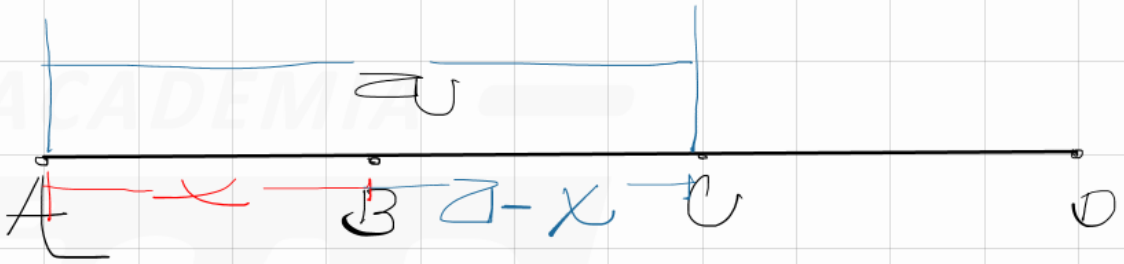
3. Sobre el segmento, de izquierda a derecha se consideran los puntos consecutivos A, B, C y D de modo que $AC = a$ cm, $BD = \left(\frac{2}{3}\right) a$ cm, sabiendo que $\left(\frac{CD}{4}\right) = \frac{BC}{3}$. Halle AB.

PIDEN $AB = x$



$\frac{2a}{3}$

SE OBS: $CD = \frac{2a}{3} - (a-x)$

$CD = \frac{2a - 3a + 3x}{3} = \frac{3x-a}{3}$

DATO: $\frac{CD}{4} = \frac{BC}{3}$

$\frac{3x-a}{3 \cdot 4} = \frac{a-x}{3}$

$3x - a = 4(a-x)$

$3x - a = 4a - 4x$

$7x = 5a$

$x = \frac{5a}{7}$

A

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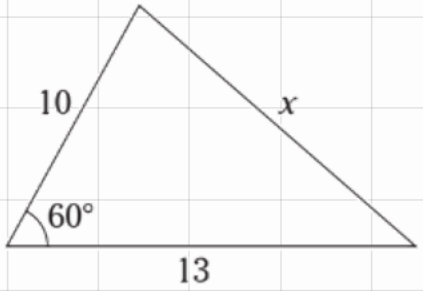
9. Calcule el valor de x.



PIDEN x

✓ △AHB NOT 30° y 60°:

BH = 5√3 ; AH = 5

✓ △BHC PITÁGORAS:

$x^2 = 8^2 + (5\sqrt{3})^2$

$x^2 = 64 + (25)(3)$

$x^2 = 64 + 75$

$x^2 = 139$

$x = \sqrt{139}$

C

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